

REMARKS

Claims 1-67 and 72-89 are pending in this application, of which claims 1 – 40, 50, 51, 60 - 67, 72 and 73 have been withdrawn from consideration. By this Amendment claims 41, 42, 52 - 55, 75-77 and 83 have been amended, claims 43-45, 47, 48, 56-58, 74, 78 - 82 and 84 - 89 have been canceled and new claims 90-93 have been added.

As To The Merits:

As to the merits of this case, the Examiner sets forth the following rejection:

- (1) claims 41-49, 52-59, and 74-89 are rejected under 35 U.S.C. §102(b) as being anticipated by Takanaga (JP6-204113);
- (2) claims 41-49, 52-59, and 74-89 are rejected under 35 U.S.C. §102(e) as being anticipated by Takahashi (5,892,573); and
- (3) claims 41-49, 52-59, and 74-89 are rejected under 35 U.S.C. §102(e) as being anticipated by Taniguchi (6,317,195).

Each of these rejections is respectfully traversed.

A cited JP 6-204113 discloses a first constitution for storing variation information of a transmittance of optical elements disposed on a light path between a light dividing number 8 and a wafer 14, caused by an exposure history and by an environments change, a second constitution for experimentally obtaining the transmittance of the optical elements by parameters of the exposure history in advance, and a third constitution for controlling an exposure quantity on the

basis of results of a light detector 9. JP 6-204113 also discloses a variation of rate between an illumination on the light detector 9 and on the wafer during exposure or un-exposure.

A cited U.S. Patent No. 5,892,573 (Takahashi et al.) discloses a constitution in which a reticle stage has transmitting portion for transmitting exposure light, and a gain correction is performed when an exposure light quantity on a wafer is indirectly measured by a light quantity detector 12 on the basis of a first output signal from a monitor which receives the exposure light passing through the transmitting portion and a second output signal from a detector which receives a light divided by a half mirror 5 disposed between a light source and a reticle.

In the other reference, namely U.S. Patent 6,317,195 (Taniguchi), total input energy incident to a projection optical system PL is obtained in accordance with relative position between a reticle R and a slit-like illumination area IA and imaging characteristics of the projection optical system is corrected based on the input energy which varies depending on the relative position between the reticle R and the slit-like illumination are IA.

None of the reference shows a step represented by the following recitation incorporated in each of claims 41 and 52, namely “obtaining a function of a fluctuation in an attenuation factor of the projection optical system as well as a function of an attenuation factor recovery of the projection optical system after suspension of the exposing energy beam”.

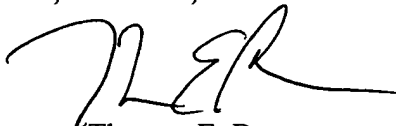
In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims, as herein amended, are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read 'TEB', with a long horizontal flourish extending to the right.

Thomas E. Brown
Attorney for Applicant
Registration No. 44,450

TEB/jnj
1250 Connecticut Avenue, NW
Suite 700
Washington, D.C. 20036
(202) 822-1100 (t)
(202) 822-1111 (f)
Q:\1999\991482A\Amendment under 1.111 3-9-04.doc